

## APPENDIX D

### Responses to EPA Comments

**Settling Work Defendants' Responses to EPA Comments on the Draft Work Area Monitoring Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
1	Page 3, 3rd bullet	The plan states that "Injection was considered as a backup end use if EPA determined, based on Potentially Responsible Parties (PRPs) efforts to negotiate agreements with drinking water purveyors, that a drinking water end use could not be implemented in a timely manner." The ROD does not say that the determination will be based on PRP efforts. Please delete the phrase "...based on Potentially Responsible Parties (PRPs) efforts to negotiate agreements with drinking water purveyors..."	<p>The second sentence of this bullet has been revised as follows:</p> <p>The Interim Action consisted of groundwater extraction and treatment with drinking water being the preferred end use of treated groundwater. Injection was considered as a backup end use if EPA determined <del>that</del>, based on <del>Potentially Responsible Parties (PRPs)</del> efforts to negotiate agreements with drinking water purveyors, <del>that</del> a drinking water end use could not be implemented in a timely manner.</p> <p>For reference, here are several examples of the language concerning end use and the negotiation process from the ROD.</p> <ul style="list-style-type: none"> <li>• Section 1.4 Description of the Selected Remedy, Page 1-2 of the ROD</li> <li>• Section 2.10.8 State Acceptance, page 2-49 of the ROD</li> <li>• Section 2.12.1 Summary of the Rationale for Interim Remedy, page 2-50 of the ROD</li> </ul>
2	Page 3, May 2016 entry	We note that the ESD removes the preference for, but continues to allow, a drinking water end use.	Comment acknowledged. No changes proposed to the WAMP text at this time.

**Settling Work Defendants' Responses to EPA Comments on the Draft Work Area Monitoring Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
3	Page 8, 2nd paragraph	The plan states that "The 2011 ROD did not include any of the metals as Main COCs..." Hexavalent chromium is a metal and is, as noted in the previous paragraph, a COC.	The final sentence of this paragraph has been revised as follows:  The 2011 ROD <del>did not include any of the metals as</del> included hexavalent chromium as a Main COCs, <del>but did</del> and included aluminum, manganese, total chromium and selenium in one or both lists of treatment standards for treated groundwater end use.
4	Page 9, 1st bullet in Section 2.4.2	The plan notes that PCE and TCE have not been detected exceeding MCLs in monitor wells deeper than 200 feet within the RDWA. We do not disagree with this statement but note that the majority of the OU2 monitoring wells are not screened below 200'. Of the 28 well locations in or near the "RD Work Area" in Figure 6, only three are screened below 200' (MW25D (209'), MW26D (205'), and Hawkins (252, 296, 388, 490')) There are similar statements for 1,4-dioxane and hexavalent chromium on page 10, 2nd and 3rd bullets.	Comment acknowledged. The following footnote has been added to the bullets regarding PCE and TCE, 1,4-dioxane, and hexavalent chromium on pages 9 and 10:  <u>Note that the majority of the OU2 monitoring wells are not deeper than 200 feet below ground surface. Of the 28 well locations shown in Figure 6, only wells MW25D (209 feet below ground surface), MW26D (205 feet below ground surface), and Hawkins (252, 296, 388, and 490 feet below ground surface) are screened deeper than 200 feet below ground surface.</u>

**Settling Work Defendants' Responses to EPA Comments on the Draft Work Area Monitoring Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

<b>Comment #</b>	<b>Location</b>	<b>EPA Comment</b>	<b>SWD's Response</b>
5	Page 9, 2nd to last and last sentences	The plan states that "Freon 113 has been infrequently analyzed at sites within OU2 but it was commonly found in soil, soil gas, or groundwater at sites where it was analyzed" and "Freon 11 was more frequently analyzed and was found in at least one environmental medium at those properties where it was tested for." We do not see support for these statements in the Plans or the relevance of these statements to the planned monitoring. Please delete.	<p>The final two sentences of this bullet, "Freon 113 has been infrequently analyzed at sites within OU2 but it was commonly found in soil, soil gas, or groundwater at sites where it was analyzed." and "Freon 11 was more frequently analyzed and was found in at least one environmental medium at those properties where it was tested for," have been deleted.</p> <p>The following modification has been made to the beginning of the third sentence in this bullet:  <u>Freons are ubiquitous compounds, and Freon 11 and Freon 113</u> <del>U</del>ses included dry cleaning, cold cleaning electrical parts, vapor phase cleaning, photographic film and magnetic tape cleaning, use in refrigerants, use in blowing agents, use in oil field activities, use in fire extinguishing, use in propellants, and use in oil field activities.</p>
6	Page 10, 3rd bullet	The Work Plan is not the appropriate place for the conclusion that "neither of the SWDs sites are sources of hexavalent chromium." Please delete.	The final sentence of this bullet, "It should be noted that neither of the SWDs sites are sources of hexavalent chromium," has been deleted.

**Settling Work Defendants' Responses to EPA Comments on the Draft Work Area Monitoring Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
7	Page 13, 1st bullet in Section 4.1	The plan should include an evaluation of the adequacy of annual monitoring, and use the results of the evaluation to determine the appropriate frequency for collecting groundwater samples and measuring groundwater elevations. The SOW in the proposed Consent Decree (Section 3.5(a)(2)) specifies that the plan should include provisions for more frequent monitoring of groundwater elevations if needed to support development and calibration of a NE/CE Area groundwater flow model.	Although not included in the DQOs section, this discussion has been included in Section 6.5, with an additional sentence as follows:  More frequent monitoring of groundwater elevations is recommended in the PDIWP to support the RD of the NE/CE Area. It is anticipated that this more frequent monitoring of groundwater elevations will also support development and calibration of a NE/CE Area groundwater flow model (SOW Section 3.5 (a) 2). <u>Recommendations for additional groundwater monitoring, if needed, will be based on the Groundwater Flow Modeling Work Plan and documented in an addendum to this WAMP.</u>
8	Page 14, DQO Step 6	The acceptance criteria are described slightly differently in the draft Work Plan and draft FSP. The Work Plan says that "Acceptance criteria include confirmation that measurements are collected accurately to within 0.01 foot by repeating the measurement if the difference between the current and previous measurement is greater than 1.0 foot..." The FSP says "Compare measurement data to previous measurements obtained at the well. For variations from previous measurements greater than 1.0 foot or for data that cannot be explained by trends, repeat the measurements." Please clarify.	For both the Work Plan and the FSP, the intended principle is for field staff to re-measure the water level if the difference between the current and previous measurement is greater than 1.0 foot. For clarification, the phrase "or for data that cannot be explained by trends" will be removed from the FSP text. No changes are recommended for the WAMP.
9	Page 17, 6th bullet	The plan states that "The RLs are lower than the respective action level for each Main COC." We note that some RLs are equal to their action level.	This bullet has been revised as follows:  The RLs are lower than <u>or equal to</u> the respective action level for each Main COC.

**Settling Work Defendants' Responses to EPA Comments on the Draft Work Area Monitoring Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
10	Page 17, last bullet and page 18, 1st bullet	Please add plans for preparation of a figure and concentration-time plot to report Cr+6 concentrations.	Hexavalent chromium has been added to both referenced bullet lists and the DQO table as requested.
11	Page 23, Section 6.6	The discussion of IDW disposal should explicitly state that the IDW will be disposed off-site at a permitted disposal facility with valid EPA CERCLA Off-site Rule approval (40 CFR 300.440).	<p>This change has been incorporated into sentence 3 of this section as follows:</p> <p>Following waste profiling, the IDW will be transported by a licensed waste hauler for disposal at an appropriately permitted solid or hazardous waste facility in accordance with Federal and State requirements, <u>including valid EPA CERCLA Off-Site Rule approval (40 CFR 300.440).</u></p>
12	Page 25, Section 8	As part of the commitment to report groundwater data that is not collected for OU2, please include data from the OW series wells collected as part of OU1 monitoring, and data from the Golden State Water Co. Pioneer wells.	<p>The comment has been incorporated into the final paragraph of this section as follows:</p> <p>The results summary will include a summary of relevant groundwater data collected by SWDs that is not specifically being collected for OU2 work, as well as other publicly or readily available data generated by third parties for wells that are in or near OU2. <u>Specifically, this additional groundwater data will include data collected from the OW series wells as part of OU1 monitoring as well as data collected from the Golden State Water Company's Pioneer wells.</u></p>

**Settling Work Defendants' Responses to EPA Comments on the Draft Field Sampling Plan for the Work Area Monitoring Plan, Omega Superfund Site OU2**

**Prepared by Geosyntec Consultants for the Settling Work Defendants  
(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

<b>Comment #</b>	<b>Location</b>	<b>EPA Comment</b>	<b>SWD's Response</b>
1	Page 4, 1st bullet	There appears to be a typo in the last sentence.	The last sentence of this bullet has been changed as follows:  To the extent practical, each monitoring well should use the same measuring reference point at each well <del>should be used</del> (e.g., north side of casing, top of sounding tube, etc.) for water level measurements.
2	Page 7, 1st bullet	Please see comment #8 on the draft Work Plan.	For both the Work Plan and the FSP, the intended principle is for field staff to re-measure the water level if the difference between the current and previous measurement is greater than 1.0 foot. For clarification, the phrase "or for data that cannot be explained by trends" has been removed from the FSP text. No changes are recommended for the WAMP.
3	Page 19, Section 5.3.2	For the multiple casing volume method, please provide a discussion of the target flow rate during sampling collection. If the well is being purged with a pump, the flow rate should be reduced to the 100 to 500 ml/min range prior to sample collection (consistent with the low-flow sampling approach).	The following sentence has been added to the fourth bullet in this section:  After purging is complete, collect water samples for laboratory analysis. <u>The target flow rate during sample collection should be within 100 to 500 ml/min, consistent with the low-flow sampling approach (Section 5.3.1.2).</u>
4	Page 19, 3rd bullet	The section number reference is missing in the last sentence.	The section number has been added as follows:  Measure the water quality parameters to determine whether parameters have stabilized (Section <u>4.3</u> ).

**Settling Work Defendants' Responses to EPA Comments on the Draft Field Sampling Plan for the Work Area Monitoring Plan, Omega Superfund Site OU2**

**Prepared by Geosyntec Consultants for the Settling Work Defendants  
(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

<b>Comment #</b>	<b>Location</b>	<b>EPA Comment</b>	<b>SWD's Response</b>
5	Page 20, Section 5.3.3, 1st bullet	The pumping rate during sample collection should also be recorded.	"Pumping rate during sample collection" has been added as the fourth sub-bullet in this list of items to be recorded during sampling.
6	Page 21, Section 5.3.3, 3rd bullet	Please provide additional detail on the field filtering process (e.g., filter size (0.45 micron?) and whether an in-line filter will be used).	The following sentences have been added to this bullet:  <u>An in-line filter (0.45-micron pore size) will be used with the sample collection tubing. A new filter will be used for each location to prevent cross-contamination.</u>
7	Page 28, Section 6	The discussion on IDW disposal should explicitly state that the IDW will be disposed off-site at a permitted disposal facility with valid EPA CERCLA Off-site Rule approval (40 CFR 300.440)	This change has been incorporated into the second-to-last sentence of this section as follows:  Following waste profiling, the IDW will be transported by a licensed waste hauler for disposal at an appropriately permitted solid or hazardous waste facility in accordance with Federal and State requirements, <u>including valid EPA CERCLA Off-Site Rule approval (40 CFR 300.440).</u>



**Settling Work Defendants' Responses to EPA Comments on the Draft Quality Assurance Project Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
		See comments #3, 4, 5, and 6 for the Draft WAMP.	Changes made to the common language in the WAMP have been incorporated into Section 2.2 of the QAPP.
1	Page 2, Section 1.3	A section reference is missing at the end of the section.	The section reference has been added as follows:  The DQOs for each activity covered by this QAPP are detailed in Section <a href="#">4</a> and in Tables 1a through 1c.
2	Page 9	The discussion on IDW disposal should explicitly state that the IDW will be disposed off-site at a permitted disposal facility with valid EPA CERCLA Off-site Rule approval (40 CFR 300.440).	This change has been incorporated into the second-to-last sentence of this section as follows:  Following waste profiling, the IDW will be transported by a licensed waste hauler for disposal at an appropriately permitted solid or hazardous waste facility in accordance with Federal and State requirements, <a href="#">including valid EPA CERCLA Off-Site Rule approval (40 CFR 300.440)</a> .
3	Page 11, Section 3.3.3	The QA manager should be independent of the laboratory and the team/subcontractors collecting the samples and report directly to the PM. Please include an organizational chart for the project team and confirm that the QA manager meets these requirements.	A project organizational chart has been prepared as Figure 1 of the QAPP. It is attached to this document for review.
4	Page 25, Section 6.1	Please define the acronym DVR.	DVR has now been defined in the text and in the acronym list as "Data Validation Report."
5	Page 37, Section 8.2.2.6	Please provide a reference to the MS/MSD RPD calculation.	The calculation, which is detailed in Section 4.2.1, has been referenced in the text as follows:  The RPD value between the matrix spike and the matrix spike duplicate ( <a href="#">see calculation in Section 4.2.1</a> ) must be reported.

**Settling Work Defendants' Responses to EPA Comments on the Draft Quality Assurance Project Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
6	Page 39, Section 9.1.1.1	The proposed data review and validation (e.g., 10% Stage 4 validation) is acceptable but EPA reserves the right to seek additional review and/or validation.	Comment acknowledged. No change to QAPP text suggested at this time.
7	Pages 39-40, Section 9.1.1.1	Please cite the source of the validation level terminology (e.g., Stage 4) used in the Plan. If the source is " <i>The EPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (2009)</i> ," please add this document to the references in Section 13.	The suggested reference is indeed the source of the validation level terminology in the QAPP. Reference to this document has been added in the text on pages 39 and 40, and the reference has been added to the References list in Section 13.
8	Page 41, Section 9.1.3	This appears to be typo in the last sentence (reference to Section 0).	The typo has been corrected as follows:  Assessment of data for precision, accuracy, and completeness will be in accordance with the quantitative definitions in Section <del>0</del> <u>4.2</u> .
9	Page 44, Section 11	The plan states that several audit types will be performed: "internal evidentiary system audit" (once during project), "field performance audit" (once during field work), and laboratory system audit ("when necessary"). Please include a provision that audit reports will be submitted to EPA, or that EPA will be notified when audits are performed and the results made available to EPA upon request.	The following text has been added to the end of Section 11:  <u>The EPA will be notified when internal evidentiary system audits, field performance audits, or laboratory system audits are performed. The results of these audits will be made available to EPA upon request.</u>
10	Table 1a, Step 5, Page 2 of 3	Please see comment #10 on the draft Work Plan	A figure and concentration time plot for hexavalent chromium concentrations have been added to the DQO table as requested.

**Settling Work Defendants' Responses to EPA Comments on the Draft Quality Assurance Project Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

<b>Comment #</b>	<b>Location</b>	<b>EPA Comment</b>	<b>SWD's Response</b>
11	Tables 5a, 5b, and 5c	Please include information on the alternative (longer holding time) method for hexavalent chromium analysis described in footnote "a" in Table B-1 in the draft FSP.	<p>The following footnote on preservation of Cr(VI) samples has been added to all three tables:</p> <p><u>If sample is field filtered and stored in ammonia sulfate buffer preservative above pH 9.3, 28-day hold times are permitted.</u></p>

**Settling Work Defendants' Responses to EPA Comments on the Draft Quality Assurance Project Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

Comment #	Location	EPA Comment	SWD's Response
12	Table 5b	In several cases, the proposed analytical method RL is greater than the MCL or the minimum detection levels provided in the table. This appears to conflict with Section 8.1 "Analytical methods proposed for this project will allow for the detection of COCs and other analytes of interest at their respective MCLs or NLs, as listed in Tables 5a through 5d."	<p>The proposed analytical method reporting limits and method detection limits have been revisited with Calscience. In cases where the method detection limits were still above the minimum detection levels presented in Table 5b, low-level drinking water analytical methods have been identified as alternate methods if needed: EPA 1640 for EPA 200.8 (metals), EPA 524.2 for EPA 8260B (volatile organic compounds), EPA 625 or 625 SIM for EPA 8270C (semi-volatile organic compounds), and EPA 608 for EPA 8081A (pesticides). These methods have also been added to Table 7.</p> <p>Footnotes have been added to Table 5b noting which methods may be substituted by a low-level method to meet the minimum detection levels. In addition, the following text has been added to Section 8.1:</p> <p>Analytical methods proposed for this project will allow for the detection of COCs and other analytes of interest at their respective MCLs or NLs, as listed in Tables 5a through 5d. <u>Where needed to meet MCLs or minimum detection levels for the project, low-level drinking water methods have been provided in the tables as alternates to the standard SW-846 methods.</u></p>
13	Table 6	The equipment rinsate blank frequency of collection is inconsistent with Section 5.5.1: "One equipment rinsate blank will be collected per matrix each day that sampling equipment is decontaminated in the field or for every 10 samples collected, whichever is more frequent."	The equipment rinsate blank frequency in Table 6 has been modified to be consistent with the referenced text in Section 5.5.1.

**Settling Work Defendants' Responses to EPA Comments on the Draft Quality Assurance Project Plan, Omega Superfund Site OU2**  
**Prepared by Geosyntec Consultants for the Settling Work Defendants**  
**(Report dated 30 August 2016; EPA comments dated 6 October 2016; Responses to comments dated 21 October 2016)**

<b>Comment #</b>	<b>Location</b>	<b>EPA Comment</b>	<b>SWD's Response</b>
14	Table 6	The frequency of collection in the "Duplicate Sample" column is inconsistent with that specified in Section 5.6 for field duplicates: "Field duplicate samples will be collected one for at least every 10 samples (10%)."	The duplicate sample frequency in Table 6 has been modified to be consistent with the referenced text in Section 5.6.
15	Table 6	The MS/MSD frequency for cyanide is inconsistent with Section 8.2.2.6.	The MS/MSD frequency for cyanide in Table 6 has been modified to be consistent with the referenced text in Section 8.2.2.6.
16	Table 7	The table is missing requirements for Organic Lead and SW7196A.	The requirements for Organic Lead and SW7196A have been added to Table 7.
17	Appendix A Lab QA Manual	The California State Accreditation for Calscience expired 9/30/2016. Please provide an update on renewal.	As of 28 September 2016, the California State Accreditation for Calscience has been renewed through 9/30/2018. The new certificate is now provided in Appendix A.